

## REMARKS

With the entry of this Amendment, claims 1-6 and 8-16 will be pending in this patent application. In this Amendment, claims 1, 2, 5, 6 and 9-11 have been amended, claim 7 has been canceled and claims 12-16 have been added. Support for the amendments to claim 1 and 2 can be found in Fig. 2 and in page 11, lines 17-24, of the specification in this application as filed. Support for the subject matter recited in claims 12-13 can be found in page 9, line 20, through page 10, line 9. Support for the subject matter recited in claims 14 and 15 can be found in Fig. 2. The amendments to the claims made in this amendment do not introduce new matter.

## ALLOWABLE SUBJECT MATTER

Applicant notes with appreciation the Examiner's recognition of allowable subject matter in formerly presented claim 7. In this Amendment, claim 7 has been canceled and re-written in independent form as claim 16.

## OBJECTIONS TO CLAIMS

In this Amendment, the Examiner's objections to the claims have been obviated by changing each occurrence of "should" in claims 5-7, 9 and 10 to --shoulder--, as required by the Examiner. (Claim 8 had no occurrences of "should.")

## SECTION 112, 2<sup>ND</sup> PARAGRAPH REJECTION

Claim 11 was rejected under 35 USC § 112, second paragraph, as being indefinite. In this Amendment, this rejection has been obviated by inserting --edges-- after "chamfered" in line 2 of claim 11, as suggested by the Examiner.

## PRIOR ART REJECTION I

Claims 1-3 were rejected under 35 USC 102(e) as anticipated by or, in the alternative, under 35 USC 103(a) as being obvious over US 6892775 B1 (Himuro '775). Applicant traverses this rejection insofar as it might be deemed applicable to any of claims 1-3 and 12-15 as now presented.

As observed by the Examiner, the tread of the Himuro '775 tire has axially inner and outer circumferential grooves 4, 5 and oblique grooves, having axially inner and outer portions, 1, 2. The axially inner portions 1 are inclined at an angle of 20-40°, and the axially outer portions 2 are inclined at an angle of 70-80°, relative to the tire circumferential direction. Sipes 6, having an inclination about the same as the oblique grooves, open directly into circumferential grooves 5 and, at their axially inner ends, open into oppositely inclined grooves that branch from the sipes and lead into portions 1 of the oblique grooves. The Examiner equated the oblique grooves of the Himuro '775 tread with the claimed "main oblique grooves" and equated the sipes 6 of the Himuro '775 tread with the claimed "auxiliary oblique grooves" and with the "narrower middle part" of the auxiliary oblique grooves.

Without acquiescing in the rejection, Applicant has amended claim 1 to recite each of the auxiliary oblique grooves as (a) "extending axially inwardly from the adjacent axially outer circumferential groove, while inclining towards the same circumferential direction as the main oblique grooves, to one of the axially adjacent main oblique grooves, without branching off" and (b) "comprising a narrow middle portion having a groove width of more than 0.5 mm and a wide end portion connecting to said one of the axially adjacent main oblique grooves while gradually increasing the width thereof from the narrow middle portion."

Applicant submits that Himuro '775 does not disclose, suggest or make obvious the combination of tire features now required by claim 1. Himuro '775 does not offer a disclosure of a tread having "auxiliary oblique grooves" satisfying the requirements recited in claim 1. For example, the sipes 6 of the Himuro '775 tread cannot be fairly characterized as "extending axially inwardly from the adjacent axially outer circumferential groove, while inclining towards the same circumferential direction as the main oblique grooves, to one of the axially adjacent main oblique grooves, without branching off" and cannot be fairly characterized as "comprising a narrow middle portion having a groove width of more than 0.5 mm and a wide end portion connecting to said one of the axially adjacent main oblique grooves while gradually increasing the width thereof from the narrow middle portion," as recited in claim 1. The feature of the Himuro '775 tread" identified by the Examiner as "a narrower middle part" cannot be fairly characterized as being "substantially parallel with the adjacent main oblique grooves," as

required by claim 2. In the specification of this application, Applicant has taken care to point out that the combination of tread features recited in claims 1-3 contributes to properties of a tire that exhibits superior performance compared to tires of the prior art.

Claims 12-15 define further patentable departures from the disclosure in Himuro '775. For example, Himuro '775 offers no disclosure or suggestion of the width of the main oblique groove, as recited in claims 12 and 13, and no disclosure or suggestion of features of the axially inner and axially outer regions as recited in claims 14 and 15.

In view of the foregoing observations, Applicant submits that the disclosure in Himuro '775 cannot properly serve as a basis for rejecting any of claims 1-3 and 12-15 under 35 USC 102(e).

#### PRIOR ART REJECTION II

Claim 4 was rejected under 35 USC § 103(a) as being unpatentable over Himuro '775 in view of JP 2001-71709 (JP '709). Applicant traverses this rejection insofar as it might be deemed applicable to any of claims 4 and 12-15 as now presented.

The Examiner implicitly acknowledged that Himuro '775 does not satisfy the requirements for each main oblique groove as recited in claim 4. As a remedy for this deficiency, the Examiner proposed modifying the Himuro '775 tread so that the steeply inclined portions 1 of the oblique grooves have a shallow part like the "connection part" 9 of the grooves 4 of the JP '709 tread.

Applicant takes issue with the Examiner's proposed combination of the disclosures in Himuro '775 and JP '709. While the connection part 9 may be advantageous when combined with other features of the JP '709 tread, there is no evidence that this feature alone would be advantageous when introduced into a tire like the Himuro '775 tread. There is no disclosure or suggestion whatsoever in Himuro '775 of employing shallow parts in the inner ends 1 of the oblique grooves.

If the Himuro '775 tread were modified as proposed by the Examiner, the resulting tread still would not satisfy the requirements of claim 4, since the disclosure in JP '709 provides no cure for the deficiencies in Himuro '775 vis-à-vis the requirements of parent claim 1. JP '709 offers no disclosure that is relevant to the requirements of claims 12-15.

In view of the foregoing observations, Applicant submits that no reasonable combination of the disclosures in Himuro '775 and JP '709 can properly serve as a basis for rejecting any of claims 4 and 12-15 under 35 USC § 103(a).

### PRIOR ART REJECTION III

Claims 5 and 6 were rejected under 35 USC § 103(a) as being unpatentable over Himuro '775 in view of US 5746849 (Hutson et al.). Applicant traverses this rejection insofar as it might be deemed applicable to any of claims 5, 6 and 12-15 as now presented.

In the Himuro '775 tread, the sipes 6, which the Examiner equated with Applicant's claimed oblique shoulder grooves, extend across the side zones TS and through the tread end TE. The Examiner acknowledged that Himuro '775 does not disclose a feature of the tread that can meet the requirements for oblique shoulder grooves that extend ... to an axial position before the critical tread edge, as recited in claims 5 and 6. To remedy this deficiency, the Examiner proposed modifying the Himuro '775 tread so that it incorporates "auxiliary shoulder grooves" that "terminate in the shoulder row of the tread elements," as is done in the Hutson et al. tread.

Applicant does not agree with the Examiner's proposal for modifying the Himuro '775 tread. Making the proposed modification would eliminate a significant feature of the Himuro '775 tread. There is no evidence that the individual feature borrowed from the Hutson et al. tread would be advantageous when not combined with other features of the Hutson et al. tread. And, there is no basis in the Himuro '775 disclosure for making the Examiner's proposed modification.

If the Himuro '775 tread were modified as proposed by the Examiner, the resulting tread still would not satisfy the requirements of claims 5 and 6, since the disclosure in Hutson et al. provides no cure for the deficiencies in Himuro '775 vis-à-vis the requirements of parent claim 1. Hutson et al. offers no disclosure that is relevant to the requirements of claims 12-15.

In view of the foregoing observations, Applicant submits that no reasonable combination of the disclosures in Himuro '775 and Hutson et al. can properly serve as a basis for rejecting any of claims 5, 6 and 12-15 under 35 USC § 103(a).

#### PRIOR ART REJECTION IV

Claims 8-10 were rejected under 35 USC § 103(a) as being unpatentable over Himuro '775 in view of JP 2-141310 (JP '310). Applicant traverses this rejection insofar as it might be deemed applicable to any of claims 8-10 and 12-15 as now presented.

The Examiner implicitly acknowledged that Himuro '775 does not meet the requirements for chamfering heel-side edges and not chamfering toe-side edges of the main oblique grooves, the oblique shoulder grooves and the auxiliary shoulder grooves as recited in claim 8, 9 and 10, respectively. To remedy this deficiency of the disclosure in Himuro '775 vis-à-vis the requirements of Applicant's claims, the Examiner proposed modifying the Himuro '775 tread so that it incorporates chamfering of the groove edges like the chamfering used in the JP '310 tread.

Again, Applicant takes issue with the selective borrowing of tread elements from one tire tread, without other elements of the tread, for use in another tire tread. Applicant submits that there is no disclosure in either Himuro '775 or JP '310 that provides a sound basis for the Examiner's proposed modification of the Himuro '775 tread and that the resulting tread would not have been obvious by accepted standards for the application of 35 USC § 103(a).

If the Himuro '775 tread were modified as proposed by the Examiner, the resulting tread still would not satisfy the requirements of claims 8-10, since the disclosure in Hutson et al. provides no cure for the deficiencies in Himuro '775 vis-à-vis the requirements of parent claim 1. JP '310 offers no disclosure that is relevant to the requirements of claims 12-15.

In view of the foregoing observations, Applicant submits that no reasonable combination of the disclosures in Himuro '775 and Hutson et al. can properly serve as a basis for rejecting any of claims 8-10 and 12-15 under 35 USC § 103(a).

#### PRIOR ART REJECTION V

Claim 11 was rejected under 35 USC § 103(a) as being unpatentable over Himuro '775 in view of GB 1 549 347 (GB '347). Applicant traverses this rejection insofar as it might be deemed applicable to any of claims 11 and 12-15 as now presented.

The Examiner implicitly acknowledged that Himuro '775 does not meet the requirements of claim 11 for chamfering of the axially inner edges and not chamfering the axially outer edges of the circumferential grooves, as required by claim 11.

Again, Applicant takes issue with the selective borrowing of tread elements from one tire tread, without other elements of the tread, for use in another tire tread. Applicant submits that there is no disclosure in either Himuro '775 or GB '347 that provides a sound basis for the Examiner's proposed modification of the Himuro '775 tread and that the resulting tread would not have been obvious.

If the Himuro '775 tread were modified as proposed by the Examiner, the resulting tread still would not satisfy the requirements of claim 11, since the disclosure in Hutson et al. provides no cure for the deficiencies in Himuro '775 vis-à-vis the requirements of parent claim 1. GB '347 offers no disclosure that is relevant to the requirements of claims 12-15.

In view of the foregoing observations, Applicant submits that no reasonable combination of the disclosures in Himuro '775 and GB '347 can properly serve as a basis for rejecting any of claims 11 and 12-15 under 35 USC § 103(a).

#### OTHER PRIOR ART

Applicant has considered the other prior art cited by the Examiner. This prior art was not applied against the claims in this application and does not warrant further comment.

#### CONCLUSION

In view of the observations and arguments presented herein, Applicant respectfully requests that the Examiner reconsider and withdraw the rejections stated in the outstanding Office Action and recognize all of the pending claims as allowable.

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If unresolved matters remain in this application, the Examiner is invited to contact Frederick R. Handren, Reg. No. 32,874, at the telephone number provided below, so that these matters can be resolved expeditiously.

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Respectfully submitted,

By



Andrew D. Meikle

Registration No.: 32,868  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant